

# W5YI

America's Oldest Ham Radio Newsletter

## REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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## FCC Covers Several Topics of Interest at Dayton HamVention!

About 30,000 amateurs made their annual pilgrimage May 19 to 21 to the Dayton HamVention – the nation's largest hamfest. Although rain was in the forecast -- for the fourth year in a row the weather was beautiful. The 49<sup>th</sup> edition of the Dayton HamVention was also – for the first time -- the ARRL 2000 National Convention.

Most long time attendees agreed that attendance was up over last year and it showed up in exhibitor sales -- probably a result of the recent restructuring of the Amateur Service.

The various *Dayton Amateur Radio Association* committees under the able leadership of General Chairman Jim Graver, KB8PSO and his assistant Bill Ervin, KA8WCF did their usual superlative job in staging the annual event.

The sold-out Saturday evening HamVention banquet was held at the E. J. Nutter Center on the campus of Wright State University in nearby Fairborn, Ohio. Dr. H. Paul Shuch N6TX was presented the **Technical Excellence Award** for his engineering work in the 1970's in VHF, UHF and microwave receivers ...and for his recent design of amateur radio astronomy equipment.

A. Prose Walker W4BW was honored with the **Special Achievement Award** in acknowledgment of his work leading toward obtaining new amateur frequency bands. He first went public with this concept in a speech made to the Swiss Amateur Soci-

ety in Geneva, Switzerland in 1974.

Noted DXer Martti Laine OH2BH captured the **2000 Amateur of the Year** award for being the #1 Ambassador of International Good Will. He is responsible for promoting the activation of many new DXCC countries. Martti is the only person to be inducted into the *CQ DX Hall of Fame*, as well as the *CQ Contest Hall of Fame*. A new, recurring **Silent Key Award** posthumously honored Jordan's King Hussein JY1 and Barry Goldwater K7UGA.

For the third year in a row, the banquet featured professional entertainment. Two years ago, it was Ronnie Milsap, WB4KCG. Last year Joe Walsh, WB6ACU – formerly with the *Eagles* – performed. This year the banquet entertainment featured Tom and Dick Smothers ...otherwise known as the Smothers Brothers. FCC's Riley Hollingsworth K4ZDH delivered the keynote speech. His topic was "We can have the world's finest Amateur Service."

As usual, Dayton featured dozens of excellent educational programs covering every amateur radio subject imaginable -- including QRP, weather satellites, kit building, tropospheric ducting, antenna technology, RTTY, public service and disaster communications, DXing, fast and slow scan TV, AMSAT (Satellites), TAPR (Digital), MARS, a Teacher's Workshop, contesting, frequency coordination, Amateur Radio and the law ...and much more!

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## The FCC Forum... Dayton HamVention - May 21, 2000

"Welcome to the FCC Forum. My name is William Cross. On the air, I'm W3TN. Off the air, I work for you.

I am very pleased to see so many of you again this year. I work in the FCC's Public Safety and Private Wireless Division of the Wireless Telecommunications Bureau.

This division is responsible for some of the rule making activities that affect the amateur radio service. It also handles the day-to-day administration of the amateur service.

This year's forum is special for two reasons: first, it is part of both the *Hamvention* and the *Millennium ARRL National Convention* (which saves me writing a speech) and second, it comes just as your new license structure and examination system is getting off the ground. It appears to be extremely successful and well-received within the amateur service community. I'll say more about this later.

Before I get into the regulatory stuff, I have some questions for you. How many of you are here for the first time? Don't be shy - raise your hands please if this is your first time. Thank you for joining us.

How many of you have taken a test within the last few months or plan on taking one as a result of the license class restructuring? *[Many hands are raised!]* Good for you. Hopefully, you studied for the test. This is the self-training that is one of the purposes of the amateur service.

How many of you have upgraded and received additional HF frequency privileges as a result of license restructuring? *[Again, many hands are raised!]* Congratulations.

How many VEs are here? Hands. Thank you. 1999 was slow because you were waiting for the FCC to deliver the license structure order.

Mission accomplished: It came to life about 10:00 AM on December 30, 1999. By the time I got home that evening, the *Report and Order* already was on at least 4 websites and the ARRL had put out a special bulletin.

From what I've heard you VEs have been as busy as one-armed paperhangers for the past 4½ months. Exam volume is up significantly. Exam sessions with 4-10 times the normal number of examinees were common; CSCEs were being issued right and left.

From what the VECs told me, you all issued CSCEs for about 20,000 people to be eligible for upgrades on April 15. And apparently they all showed up April 15 for that next CSCE. You all have been busy.

Through all of the activity this past winter and this spring, I never heard a single complaint about the lack of

availability of exam opportunities.

In fact I heard the opposite: I heard about exam sessions at midnight April 15, I heard about weekends with hundreds of sessions all over the country so examinees could test under the old system. I heard about paperwork only sessions April 15 so others could get on frequencies reserved for your class of license.

To all of you who have higher class licenses, look at the VEs -- they are the ones who have made this system work and it is because of them that you walked out with that /KT, /AG, or /AE behind your call sign. Let's give the VEs a big round of applause.

And VECs? You all had to check all the work the VEs did, process the files and transmit them to us. And you did all this with an extremely low defect rate.

Speaking of VECs, there are a few of them here and I want to introduce them to you. VECs aren't big faceless organizations. They are your fellow licensees who have taken on an unbelievable job -- they coordinate the efforts of the VEs, deal with us, and many times, they are VEs themselves.

These are the gentlemen that run the organizations that process your applications and file them with us. They also provide you with other services such as license renewals, and modifications. Without the VECs and VEs, ham radio would not be what it is today. And most of these individuals have been VECs for the past 10 to 15 years.

## Regulatory decisions that effect the amateur service

1999 was one of the busiest years we have had in a long time. As part of a campaign to eliminate a backlog of cases that had formed, nine of your rulemaking requests were resolved.

I also want to talk about repeater coordination -- there has been a lot of confusion about this in the past year. I'm also here to listen to your remarks.

I want to dispel the notion that the *Public Safety and Private Wireless Division* is the only unit in the Commission that has an impact on the amateur service. Nothing could be further from the truth. The amateur service is affected by the *Office of Engineering and Technology*, the *International Bureau*, which is involved with World Radio Conferences such as the one now in Istanbul, and the *Office of the Managing Director*.

OMD is responsible for maintaining the Electronic Comment Filing System and keeping track of documents in rulemaking proceedings. When I refer to "the record" in a proceeding, the record is the collection of documents that OMD has associated with a particular proceeding.

Last May, Chairman Kennard announced that the FCC would convene a series of forums to discuss the



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Commission's role in the 21st century. The results of these forums became the Chairman's 5-year Draft Strategic Plan, which was released last August.

The plan's four primary goals to successfully carry out the transition from a market regulator to a market facilitator are to:

- (1) create a model agency for the digital age;
- (2) promote competition in all communications markets;
- (3) promote opportunities for all Americans to benefit from the communications revolution; and
- (4) manage the electromagnetic spectrum in the public interest.

Let me say that again: The FCC is transitioning from a market regulator to a market facilitator. Detailed regulation of the nitty-gritty of communication services, including the amateur services, is not in the picture.

The Commission also is pursuing its goal of regulating only where absolutely necessary, streamlining regulating to the maximum extent possible, and eliminating unnecessary regulations.

I mentioned this so you have an idea about what the landscape is like in which ham radio is competing for attention at the Commission

## The FCC's ham radio website on the Internet

Most of you know that it is at: <<http://www.fcc.gov/wtb/amateur>> It has a lot of information of interest to you. The site was revised extensively May 8. Some links to recent rule making items have been added. Others were removed and the organization was changed.

Two new pages have been added to help you file applications. These are under the Application Filing Information link. There is a page for ULS Instructions for Amateur Filing and a page for ULS Instructions for Vanity Filing. They are classic nuts-and-bolts "how to" pages prepared by the ULS staff to help you get your application in the system. The pages also have links to FCC staff that can help you with filings. It isn't me.

Believe it or not, we have a huge self-interest in you getting your applications filed properly because not getting them in the system creates a lot of work for the Consumer Center staff. They have to deal with your phone calls and explain why the application was dismissed. Each dismissed application can result in at least another ½ hour of work time for us.

We also put the 1999 Order in RM-8763, the ARRL's request that we extend PRB-1 to CC&Rs, on the main webpage right under the 1985 PRB-1 decision. We put all the international related pages together under a link called operating overseas.

I hope this will make it easier for you to find the infor-

mation you are looking for. Trying to keep the site current could be a full time job in itself.

Maintaining the webpage is a function of the Wireless Bureau's Information Technology Division. They are the group that speaks HTML. I speak DX -- not HTML

## Amateur spread spectrum rulemaking

The first amateur service Commission action that came out after last year's *Hamvention* was the *Report and Order* in WT Docket No. 97-12. This proceeding looked to authorize amateur stations to make greater use of spread spectrum emission technologies.

In this proceeding, the Commission removed the restriction in the rules that limited SS emission types amateur stations could transmit. It also removed now -- unnecessary recordkeeping and station identification requirements that applied only to stations transmitting SS emissions.

These changes will allow amateur service licensees to experiment with additional SS emission types; allow amateur radio operators to develop innovations and improvements to communications products and develop new communications technologies. Amateur stations can now transmit and experiment with SS technologies currently used in consumer and commercial products.

The Commission also terminated a STA that allowed certain amateur stations privileges unavailable to other amateur stations. With the elimination of the restrictions on SS emission types that could be transmitted, there was no longer any need for the STA.

SS emissions are still restricted to amateur service bands above 420 MHz and, for the first time, an amateur station is required to incorporate automatic power control if it transmits more than 1 watt. This automatic power control requirement applies only to stations transmitting SS emission types, however.

These rule changes became effective November 1, 1999.

## Five amateur petitions dismissed

The second Order that directly effected the amateur service was an Order that dismissed five unrelated petitions for rule making that we had received. The text is on the webpage.

The petitions were dismissed because we found that the petitioners had not presented sufficient evidence to justify altering the current operator privileges or they requested changes that are inconsistent with the international *Radio Regulations*.

Two of the five petitions caught your attention. In RM-9259, the ARRL requested that the Commission declare that the phrase "good amateur practice" requires that control operators of amateur radio stations comply



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with voluntary band plans. The ARRL also requested we declare that any amateur radio station control operator who selects a transmitting frequency not in harmony with those voluntary band plans is not operating in accordance with good amateur practice. This would be a violation of Section 97.101(a).

The ARRL believed that this was necessary to prevent interference by "rogue operators." It also noted, however, that rigid enforcement of band plans is neither warranted or feasible and it did not want to fix the current band plans as they are, or to incorporate voluntary band plans into the Rules.

We received over seventy comments and reply comments on this idea. In a nut shell, not many of you thought much of it. Numerous comments objected to the scope of the request, and to any attempt to establish mandatory band plans.

We found that what the ARRL was asking for would have the effect of transforming voluntary band plans into *de facto* required mandates. We also noted that Section 97.101(d) already provides that no amateur operator shall willfully or maliciously interfere with or cause interference to any radio communication or signal and we dismissed the request as unnecessary.

RM-9673 was received from the Central States VHF Society. It requested that we amend the rules to protect weak signal operation in which its members and others engage. It wanted to eliminate wide band emissions that are increasingly popular on the VHF bands, such as FM voice and/or packet emissions, in certain frequency segments.

Again, when a request was received that would have the effect of limiting your flexibility to use your frequencies, you were vocal-sixty-eight comments and reply comments were received.

Some of you expressed the view that weak signal operation is a minority operating interest within the VHF amateur service community. Others said we should not set aside frequency bands on the basis of personal operating interests, or you disputed the need for protecting weak signal operations. The ARRL said that the requested rule amendment is not necessary and that user education can solve the problem that CSVHFS believes exists.

We agreed that the proposed revisions to the rules were not necessary. We also pointed out that subdividing amateur service bands on the basis of operating interests would result in a loss of flexibility to accommodate changes in operating trends and new technologies.

Our policy regarding interference between amateur service stations engaging in different operating activities was stated in the Spread Spectrum decision I mentioned earlier.

Here it is: we believe that excluding specific emission types from additional frequency segments based on the specific operating interests of individual licensees or groups of licensees is inconsistent with the principle that each station licensee and each control operator must cooperate in selecting transmitting channels and in making the most effective use of the frequencies allocated to the Amateur Radio Service.

A hallmark of the Amateur Radio Service has been that all frequencies are shared. The expectation of any station that it can operate in a totally interference-free environment, therefore, is unreasonable. We also believe that subdividing amateur service frequency bands would undercut the voluntary band planning that the amateur service community does and would result in a loss of flexibility to reallocate spectrum as licensee's operating interests change, new technologies are incorporated, and frequency bands in the radio spectrum are reallocated.

Here, we agreed with ARRL that education and the application of other rule sections should be sufficient to minimize interference and we dismissed RM-9672.

I hope that those of you that had thoughts of asking for a DX subband, a DXpedition subband, RTTY, AMTOR, or packet subbands, a subband clear of contesting, a domestic only rag-chewers subband, a Worked All States QRP subband, a slow scan TV subband, or my favorite -- an IOTA -- only subband on each HF band, will think again -- you really are asking us to tie your hands to use your spectrum as you want. You also are asking for a rule that is unenforceable on foreign licensed stations.

What you really are doing is asking the Federal government to put the specific operating interests of some licensees or groups of licensees ahead of other licensees. If subdividing amateur service frequency bands is important to you, you can do this through voluntary band planning among yourselves.

## Restructuring of amateur service license classes

This is the *Amateur Service Biennial Review* proceeding, or WT Docket No. 98-143, the proceeding that amended the amateur service operator license requirements and structure.

This proceeding started in August, 1998 as one of the first group of biennial review proceedings. In these proceedings, the Commission undertook a review of all its regulations relating to administering wireless services to determine which regulations can be streamlined or eliminated. The *Report and Order* was released December 30, 1999. The text is on the webpage.

In this proceeding, the Commission examined the Amateur Radio Service rules in an effort to streamline our licensing processes and eliminate unnecessary and dupli-



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cative rules. This review examined ways to streamline the administration of the amateur service and to simplify the licensing process while still encouraging amateur radio operators to advance their skills in meaningful ways.

We received over 2250 comments in this proceeding. They showed that you generally supported streamlining and simplification of your license structure.

We also concluded, based on your comments, that we were able to adopt a streamlined and simplified amateur service license structure that will:

- (a) comply with the Communications Act and the *Radio Regulations*;
- (b) streamline and simplify the license structure, and
- (c) reduce the resources the Commission expends on administration of the amateur service without adversely affecting the overall effectiveness of the licensing system.

The Commission simplified the amateur service license structure by grandfathering the Novice and Advanced Class operator licenses and by combining the Technician and Technician Plus classes of amateur radio operator licenses. Six classes of amateur service licenses are still in the database and will be until all the Technician Plus Class licenses are renewed. Then there will be five. Novice and Advanced Class licensees can renew or modify their license indefinitely.

You told us that a three-class license structure will provide an incentive for licensees to continue the educational opportunities offered by amateur radio as the ARRL requested, and will continue to provide an incentive for amateur radio operators to advance their communication and technical skills. Additionally, a three-class license structure provides a sufficient number of license classes so that the fundamental purposes underlying the amateur service rules will not be compromised.

The Commission found that you did not support a single amateur radio operator license and a two- or four-class operator license structure. A two-class license structure would not contain a sufficient number of license classes to provide an incentive for licensees to advance their skills in meaningful ways. It also concluded that a five-class operator license structure would not significantly streamline and simplify the present amateur service licensing system.

Some of the other features of the revised license structure that you asked for and that we were able to accommodate was the ARRL's overall request that no change in the license structure be made that would reduce the privileges of any existing licensee, and other commenter's requests that licensees not receive additional privileges without passing the required examina-

tions.

From what I have heard, this decision that nobody gets something for nothing (except the pre-March 1987 Grandpappy Techs) and nobody loses anything are two of the main reasons the revisions to the license structure have been accepted. And the reason VEs have been busier than ever before.

Statements you have heard to the effect that there will be three classes of amateur radio operator licenses refer to the upgrade path for current licensees and the number of operator classes available to individuals entering the amateur service after April 15. Those classes are the Technician Class, the General Class, and the Amateur Extra Class operator licenses.

Ultimately, the number of Novice and Advanced Class licensees will decline because they will either upgrade to the General or Amateur Extra Class or fail to renew and drop out of ham radio. It appears Advanced Class licensees are upgrading in significant numbers. So are the Tech plus Class licensees. The number of Novices has been declining for the past few years -- especially since the Technician Class became the no-code class of license.

To give you an idea of what we are seeing, since April 15, we granted or had in the system 9,171 upgrades as of noon last Wednesday (May 17). We also had 1,836 new license applications granted or in the system. That's 11,000 people that have been in the exam rooms and have completed the licensing process in the last two months.

Boxes of applications continue arriving at the ARRL-VEC. It said it served nearly 35,800 applicants between January 1 and April 14. That's an average of about 2500 per week. It received nearly 16,000 applications from the April 15 test sessions.

Fred Maia, W5YI, doesn't count applications. He uses a new measure- mail buckets. He's got mail buckets everywhere. Applications through May 1 have been processed by the W5YI-VEC.

Ray Adams told me WCARS measures in inches the stacks of applications they process. He's been busy, too- his wife wants the dining room back. The other VECs have been just as busy.

A number of people have asked if we will be able to distinguish Technician Class licensees who have passed a code test from those who haven't. The answer is yes- we have a copy of the database as it existed on April 15.

A Tech Plus license renewed as a Tech license has a statement on it that, in essence, tells VEs that the person previously held a Tech + Class operator license and therefore is eligible for credit for the telegraphy exam. Or the VEs can use an old license, a CSCE within that past 365



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days, a Callbook magazine entry, or some other documentation. The FCC's rules do not limit the documentation the VEs can use to satisfy themselves that you held a particular operator license in the past.

Because the statement is in the special conditions field, it also is in the Universal Licensing System, or ULS, license record so it can be viewed when you check a license. No code Technician Class licenses will not have this statement printed on them when they renew.

Let's stop here for a minute and see what we have. We have a simplified licensing structure -- Technician, General and Amateur Extra Class licenses. We have new exam elements. We have old Technician Class licensees walking into exam sessions and walking out with General Class privileges without taking an exam.

We have Novice Class licensees rediscovering ham radio, maybe getting a general Class license by passing only written exams. We have a lot of people who have had no contact with the HF end of ham radio for years (which is what this proceeding was all about) qualifying for HF privileges on the basis of exams passed long ago.

We have a problem. The problem is that the disconnect between the qualifying exam system and on the air operating is becoming more apparent. There always has been this disconnect -- it is not new.

We have people who do not know about WARC bands, or Novice enhancement, or that the 10M phone band was extended down to 28.3 MHz, or that 30M is a CW, RTTY and data only band now getting these privileges. The Grandpappy Techs from the 60s or the 70s remember (maybe) the HF rules as they were then. Same for the long time Novice or the General Class licensee. The rules today are not what they were even 10 years ago. Much less 20 or 30 years ago.

The situation in some ways is like the person with the new driver's license. They are elated the government has found them qualified to drive and issued the license. They are raring to go. The rest of us are scared to death at the thought. We know the learning has just begun. And we don't want them learning at our expense.

We have already seen this a bit. I know I sure have. The fact that some new General Class licensees have already asked if they get the Advanced Class phone privileges shows two things -- 1.) they don't know the rules, and 2.) they haven't found the information they need yet.

New and newly upgraded licensees are going to make mistakes. We all did. With my old Heathkit DX-20, I first worked Australia on 20 CW -- while transmitting on frequencies in 40 -- 10 meters simultaneously. And unknowingly. We need to educate newly upgraded licensees as to what their license really authorizes.

I have seen frequency and emission privilege charts

that show what band segments are available to different class licensees. A welcome back to ham radio or congratulations on the upgrade with a handout from the local club, the VEs, or another ham in town may help prevent a lot of accidents on the air.

Like a new General Class licensee transmitting phone in the Advanced or Extra Class phone bands. On top of the FO0, the TX0 or the A52. A gentle correction to the new /AG on 7.175 or 21.250 may be needed. Refer them to the rules, Section 97.301, and pass along one of the website addresses that have them.

Just like you, newly minted Generals and Extras want to comply with the rules. Just like you, they have invested a lot in getting that signal on the air, although it may be on the wrong frequency. And just like you, a correction that starts with "You idiot" isn't going to get the result you want.

## Morse code examination standards

The Notice sought comment on all aspects of the Morse code standards used in our telegraphy examinations, including whether we should continue to have a standard that requires three different telegraphy examinations or whether this standard should be reduced to one or two telegraphy examinations, and, if so, what the required speeds should be.

The international *Radio Regulations* contain certain requirements that an applicant for an amateur radio license must satisfy. With regard to telegraphy specifically, the *Radio Regulations* require that persons seeking a license to operate an amateur radio station must prove that they have the ability to send correctly by hand and to receive correctly by ear texts in Morse code telegraphy signals.

The *Radio Regulations* do not contain any specified minimum speed, but they also provide that this requirement may be waived only for an operator of a station transmitting exclusively on frequencies above 30 MHz.

In order to comply with the *Radio Regulations*, our rules require that every class of amateur radio operator license that authorizes privileges below 30 MHz has, as one of the examination elements that an applicant is required to pass or otherwise receive credit for, a telegraphy examination element.

Some comments stated that the current licensing structure overemphasizes the importance of manual telegraphy. The ARRL said that the current examination structure places a strong emphasis on demonstrating Morse code proficiency, while not requiring demonstrated proficiency in more technically advanced communications techniques. It also said that telegraphy should not be overemphasized to the exclusion of other operating



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modes.

The Commission concluded that the public interest will best be served by reducing the telegraphy examination requirement to the minimum requirement that we have found that meets the *Radio Regulations*. We streamlined Section 97.503(b) to reduce the number of telegraphy examination elements from three to one — specifically, a 5 wpm telegraphy examination.

It also noted that one of the fundamental purposes underlying the amateur service rules is to accommodate the amateur radio operator's proven ability to contribute to the advancement of the radio art.

We believe that an individual's ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual's ability to contribute to the advancement of the radio art. As a result, we found that such a license qualification rule is not in furtherance of the purpose of the amateur service and we do not believe that it continues to serve a regulatory purpose.

Elimination of the 13 and 20 wpm code tests as licensing requirements has nothing to do with operating privileges or operating choices that you as a licensee make. No operating privileges changed.

I'm sure that all of you know other licensees who have passed the 13 or 20 wpm telegraphy exams and who never use telegraphy. Some of these licensees are at the top of the phone and mixed DXCC Honor Rolls or have achieved other ham radio accomplishments of note. Others readily admit they operate only SSB or a digital mode.

Operating choices, whether it be SSB, CW, QRP, slow or fast scan television, RTTY, PSK 31, tropo scatter or transequitorial DX on 6 meters, moonbounce or a multitude of others, involved individual choices that reflect your personally operating interests.

Operating choice are determined by your definition of fun. Operating choices never have been based on what exam you passed. They are based on personal preference. We do not regulate what operating activity you choose after you qualify for your license. In fact, there is no rule that requires you to ever use CW again after you pass that test ...and many of you choose not to.

The Commission also found unconvincing the argument that telegraphy proficiency is one way to keep you ready to be of service in an emergency. According to the amateur radio press, most amateur radio operators who choose to provide emergency communication do so using voice or digital modes of communication, in part, because information can be exchanged much faster using these other modes of communication. Most emergency and public safety communication today is performed using either voice, data, or video modes.

The Commission also concluded that, due to the *Radio Regulations*, it could not grant the request of the ARRL that we authorize privilege on all amateur service bands below 30 MHz to Technician Class licensees who have not passed a telegraphy examination.

The *Radio Regulations* provide that the telegraphy requirement may be waived only for an operator of a station transmitting exclusively on frequencies above 30 MHz. The ARRL also reminded us that the *Radio Regulations* are an obligation that we can not waive.

A telegraphy proficiency licensing requirement is part of the *Radio Regulations* and will be there until a World Radio Conference changes this regulation. Last I heard, this regulation might be taken up at the 2003 World Radio Conference.

I'm not sure what the WRC now going on decided about the agenda for the next conference, if anything. Until then, a lot of other countries have either adopted or are considering adopting 5 wpm as their telegraphy requirement.

## Updating the written examination elements

In the *Notice*, we also sought comment on whether the written examination requirements should be modified to provide VEs and VECs additional flexibility in determining the specific contents of written examinations. The purpose of the written examination is to allow the applicant to demonstrate that he or she is qualified to be an amateur service licensee.

The components of the pre-April 15 written examinations were carried over into the VE system from the examination used previously when the Commission prepared and administered amateur radio operator examinations. They were vintage 1983.

Your comments strongly agreed that the written examination elements were in need of updating or changing. You convinced us that the current written examination elements are not adequate. Almost all of the comments suggest that some type of change to the current system is needed.

The National Conference of VECs, for example, said that the topics currently specified in the rules fail to take into account changes in operating habits, technology, and transmitting equipment that have occurred over the past fifteen years. It also said that this rule section results in VEs administering examinations that contain questions on topics that are not appropriate to the class of license being tested for.

Kenwood said the written examination requirements should be revised to eliminate questions that call for memorization of operating trivia and, instead, should focus on technical theory that a licensee in a technical



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avocation should be expected to know. QCWA recommends that questions on advanced technologies be included in future examinations. The ARRL believed that some topics could be consolidated.

Other commenters suggested that the written examinations test on law, operating practice, and theory applicable to particular amateur service bands. Additionally, some comments wanted to reduced the number of written examination elements to better correlate with the number of license classes.

We agreed that the rules specifying the written examination elements were in need of updating and should be streamlined. So we revised Section 97.503(b) to reduce the number of written examination elements from five to three and we aligned these elements with the classes of amateur radio operator licenses.

There are now three written examination elements, one for each class of operator license, and the make-up of the exam is no longer hamstrung (no pun intended) by the pre-1983 components that our old Field Operations Bureau used when they made up the exams. Now the Technician Class written exam is Element 2, a 35 question exam; the General Class written exam is Element 3, also a 35 question exam; and the Amateur Extra Class written exam is Element 4 -- a 50 question exam.

The Commission agreed that the *Question Pool Committee*, or QPC, of the NCVECs is capable of both specifying topics and organizing questions by topic, if this function is necessary, as part of its maintenance of the question pools. Allowing the Question Pool Committee of the NCVECs this flexibility will allow material included on amateur radio operator examinations to reflect technological advances in a much more timely fashion than can be accomplished by the rulemaking process.

Revising the question pools is no small job. Remember, the first the QPC knew of the FCC's decision was December 30, 1999, the same time the rest of you knew about this. The effective date of these changes was April 15, 2000. That date was picked for two reasons: it was the longest date out that could reasonably be asked for and I thought it gave the QPC time to revise the question pools.

The QPC did an amazing job of revising all the pools. The *Report and Order* suggested a way of combining the former exam elements to create the new one, but the decision as to how to do this was up to the QPC. They combined the old pools in such a way that none of the study guides you all had purchased but not got around to studying were obsolete.

The QPC worked madly away on this task during Jan. and Feb. New question pools for all three exam elements were released to publishers and others in early

March. New study material was on the shelf in April. A perfect example of why we allowed the QPC to take over administering the question pools.

I have heard some comments about the new pools--especially the new Extra Class pool. They aren't easy questions. One fellow in my office is a lawyer/engineer who also is a long time General Class licensee. I gave him the new Extra Class pool. Next day he was back in my office complaining about having to dig out old textbooks, complaining about rectangular and polar coordinates, antenna matching and VSWR questions, etc. Another fellow who taught EE for years also comments on the quality of the new pools. He thought they covered engineering pretty well. These exams are not "dumbed down" by any stretch of the imagination. If anything the question pools are more difficult because the easy questions are gone.

In the meantime, you all were buying up every copy of every study guides you could find. One VEC said that over the New Year's weekend you all had ordered 10 times the normal amount of study materials. The ARRL opened to a flood of orders too. Concerns about unsold inventory of study guides evaporated. In fact, some of the publishers had to order extra print runs of the old books to satisfy the demand for study guides.

There were other parts of the decision, such as authorizing Advanced Class operators to prepare and administer examinations for the General Class operator license and eliminating RACES station licenses by not renewing them. These are all part of the streamlining process but haven't caused much interest either way.

## Vanity call sign system is very popular!

The vanity call sign system has issued about 30,000 vanity call signs since it started in 1996. The bulk of the applications are coming in electronically.

The applications show that there has been no let up in your creativity when it comes to arranging letters and numbers and gaming the system.

Most are non-controversial, appropriate, or funny. The cover girl on a recent issue of CQ magazine was--- K0GAL. And she was with her grandfather fellows so don't get excited. No problem--I'm sure most of us can understand that a YL in Missouri is a GAL in K0-land. Others include WR0NG, W0ODY to a fellow named Woody, KR1STA to Krista, and KN1GHT to a fellow named Knight. IOTA island hunters seem to have a thing for call signs that end in ISL. Initials are still very popular.

Some licensees are picking combinations of letters and numbers that other licensees find objectionable. Other licensees are letting us know they don't like some of the choices.



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Some of your fellow licensees have picked call signs that are intended to offend you, incite you, or call attention to anatomical features or various body parts. Licensees that use the vanity call sign system to make a statement or pick a call sign that offends you still receive the protection of the first amendment of the Constitution. We do not censor call signs.

Several of you still are helping out by keeping close watch on the vanity call signs that are being assigned. You are still bringing to our attention instances where the requester is not eligible for what he was assigned. We are still taking back call signs that the requestor was not eligible for.

Speaking of vanity call signs, the Commission released a its annual fee Notice of Proposed Rule Making recently. It proposes to keep the fee for vanity call sign applications at \$14.00. The final fee may be different. If adopted, the new fee would become applicable when the new fee schedule becomes effective. The fee you pay is based on the date your application is filed with the Commission.

## Repeater coordination

Now for the last topic I want to talk about -- repeater coordination. Last summer, we received a number of letters from a congressman on behalf of two constituents who were unhappy about some decisions the local frequency coordinator had made.

They specifically objected to SCRRBA's new technical standards for coordinating and a coordination decision it made. SCRRBA is one of the frequency coordinators in southern California. In essence, their question was how to oust an incumbent coordinator.

We responded to the congressman with a letter that has come to be known as the Terry letter, after D'wana Terry, the Chief of the division I work in and the signer of the letter. I wrote the letter. It was published in World-radio, different websites, and in other places. In publishing it, some people took the liberty to do some editing. Others omitted part of the letter. Others gave their spin on what it really said. Spinmisters apparently are not limited to Washington, D.C.

Most of you have probably never heard of this letter. Others characterized it as a new Magna Carta. The most notable feature of the letter was that it said absolutely nothing new. It merely restated the FCC's long-standing repeater coordinator policy.

Repeater stations are one of the multitude of type of stations your license authorizes. Our rules provide that any station licensed to the holder of a Technician or higher class operator license may be a repeater. The decision as to whether to put up a repeater is the station li-

censee's decision.

Frequency coordination of repeaters, and later auxiliary stations, is a process that you developed in order to avoid or minimize potential interference. You saw the need for this function back in the 60s and 70s as more and more licensees wanted to put repeaters on the air. You worked this out so that multiple repeaters could co-exist.

Frequency coordination in the amateur service is voluntary. Always has been. In 1987, in PR Docket No. 85-22, *Report and Order* and *Memorandum Opinion and Order*, the Commission decided to continue relying on voluntary coordination of amateur service repeater stations. There is no Commission rule requiring approval of a frequency coordinator before a repeater goes on the air. This is what the letter said.

Frequency coordinators are entities that are recognized in a local or regional area by amateur radio operators whose stations are eligible to be auxiliary or repeater stations. Frequency coordinators may be individuals, clubs, or informal groups. They don't have to be hams, but they usually are.

Frequency coordinators derive their recognition from the voluntary participation of the local or regional amateur service community. We do not tell you who your frequency coordinator is. The frequency coordinator is responsible to you -- it is not responsible to the FCC.

In a system where you voluntarily choose to put up a repeater and voluntarily recognize the coordinator, a coordinator not considering the concerns of all users of spectrum affected by repeater operation can be replaced by a local amateurs choosing another frequency coordination entity. Changing coordinators is the mechanism that we anticipated you would use to replace a frequency coordinator that was not representative of all or otherwise meeting your needs.

This process does not involve the FCC. The FCC does not recognize or regulate local or regional frequency coordinators, *per se*. The list of coordinators in the ARRL Repeater Directory is there for whatever editorial or informational purpose the ARRL decided this list would serve. Complaining to us about them isn't going to do you much good -- we aren't going to send Riley after an entity we don't recognize in the first place.

The function of an amateur service frequency coordinator is to recommending transmit/receive channels and associated operating and technical parameters in order to avoid or minimize potential interference. The action word is *recommend*. You may go to your local frequency coordinator and ask about getting coordinated. The coordinator can tell you that its database shows no available channels. Or that it cannot recommend transmit/receive chan-



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nels or associated operating and technical parameters for your station. There are a multitude of reasons they may not be able to.

As long as you do not cause harmful interference to another station, however, you can put your repeater on the air. Section 97.205 provides the authority. The licensee of the repeater station is responsible for that station. It may be that the standards the coordinator is using do not fit your area or that there are facts about local conditions that are not known to the coordinator, or that the database is out of date.

A frequency coordinator does not have the authority to tell any licensee that he or she may not put a repeater on the air. Telling you that would in essence, restrict what your license authorizes. Only the Commission can do that. The coordinator's decision is to coordinate your station or to not coordinate your station.

The FCC's longstanding policy of permitting amateur radio operators to collectively self-regulate your repeater coordinators has generally been a resounding success. This policy has allowed you determine for yourself how to meet your needs.

There are no Commission rules governing the selection of a coordinator or the procedures for coordination. The technical standards a coordinator uses such as distance separation, propagation models, channels spacing etc are not FCC standards are not in the rules. If the standards a coordinator is using are "wrong" in some sense, tell the coordinator.

I assure you that different coordinators around the country use different standards. Amateur radio operators and coordinators have the flexibility to make and change these standards at the local and regional level. If the coordinator doesn't listen, find someone to better perform this function. Coordination is an option to serve your needs.

Voluntary coordination and the flexibility that goes with it has allowed you to respond to local situations in a manner that meets your needs. For example, a coordinator in the New York City area folded up its tent some years ago. Amateur service repeaters continued to operate. Later, licensees in the Tri-State area decided they wanted to try coordination again, but they carved up the area differently -- a new coordinator did some of the area and a coordinator in Connecticut does some of the Long Island counties, as I recall. Some areas have no coordination entity. The local hams can do this because the rules do not hamper them. The process need not involve us, does not involve us, and it should not involve us. I have the greatest confidence that you can do a better job collectively solving your local or regional problem than the FCC ever could.

Frequency coordination is taken without the involve-

ment of the FCC. This approach keeps coordination at the local level, where people who more readily have knowledge of the facts can respond to the situations expeditiously and where the coordinator is directly answerable to the local amateur community.

If you want, you can have multiple coordinators in a state or on a band, part of a state coordinated (like the urban parts) and other parts not, some bands coordinated (the congested ones I suppose) and some bands not coordinated. If one of these models fits your needs, then use it. There are a lot of other models, too.

The Commission receives relatively few complaints about the decisions of frequency coordinators in the amateur service. Southern California is the exception. In part, this disparity appears to be due to the fact that licensees have chosen to place their repeater stations at very high elevations. High antennas cover large land areas with a single station's signal.

This law of physics applies to the rest of the country, too. If you place an antenna at a very high elevation, say Mount Washington or McKinley, the Sears Tower, or way up on a broadcast tower, the signal will cover a large land area. Considering that sometimes you can see the Atlantic Ocean from the top of Mt. Washington or watch NYC TV stations on line of sight, you better believe a repeater is going to cover most of New England. The effect of putting these things way up high is to limit the number of repeaters that may transmit on a repeater channels without interfering with each other.

High antennas and big coverage areas have a tradeoff -- fewer repeaters can co-exist on the channel. Now you -- not the FCC -- have to decide who gets to be the repeater. Is it this club or that club? This person or that person? Who gets to keep the channel at the end of a civil war in the club? How do you decide? Don't come to me -- I don't have a clue what the local conditions or politics are. And I have no basis for saying "yes" to one and "no" to another. This isn't a Federal issue. Rather, it's as local as you can get.

The Commission has never selected or approved any entity as a local or regional amateur service frequency coordinator, or reviewed the coordination decisions of a particular amateur service frequency coordinator. In the few geographical areas where the local or regional amateur service community has decided to have multiple frequency coordinators, we expect that the coordinators will cooperate with each other.

If they don't, you the users, will not be able to use your channels. The requirement that licensees may make the most effective use of amateur service frequencies, is still there and the fact that multiple coordinators may be involved does not absolve licensees of this responsibility.